



Presents



An amusement only conversion for PAC-MAN®, BOARDWALK CASINO includes JOKER POKER, BLACKJACK and HI-LO. JOKER POKER uses two jokers in the deck and a raise-bet feature to provide exciting play. BLACKJACK features include double-down, insurance betting, splitting, and 5-card Charlie's. HI-LO also has the raise-bet feature and recognizes 3-of-a-kind's, straights, and flushes. Beautiful graphics and high-score lists for each game contribute to a colorful and exciting video card game.

In addition to this manual,

The upright conversion kit contains:

- Satellite board
- Marquee (header glass)
- Bezel (monitor glass)
- Completely assembled control panel

The cocktail conversion kit contains:

- Satellite board
- 12 buttons and switches
- Oversized underlay
- 2 control panel overlays

BOARDWALK CASINO is a trademark of Cardinal Amusement Products.
PAC-MAN® is a registered trademark of Midway Mfg. Co.

OPERATOR INFORMATION

W A R N I N G

F.C.C. REGULATION COMPLIANCE

This conversion kit must be installed according to the following instructions for F.C.C. regulation compliance.

This is required to avoid radio frequency radiation and to comply with the limits for a Class "A" computing device pursuant to Subpart "J" of Part 15 of F.C.C. Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

The operation of this equipment in a residential area is likely to cause interference - in which case the user will be required to take whatever measures are necessary to correct the interference at his own expense.

Instructions for F.C.C. Compliance

For F.C.C. compliance, mount the satellite board inside a well-grounded cage with the main logic board. Run the wires from the filter board through the enclosed ferrite torroids to suppress radiated emissions.

If your game is an older model not having a cage or filter board, these should be obtained from the game manufacturer.

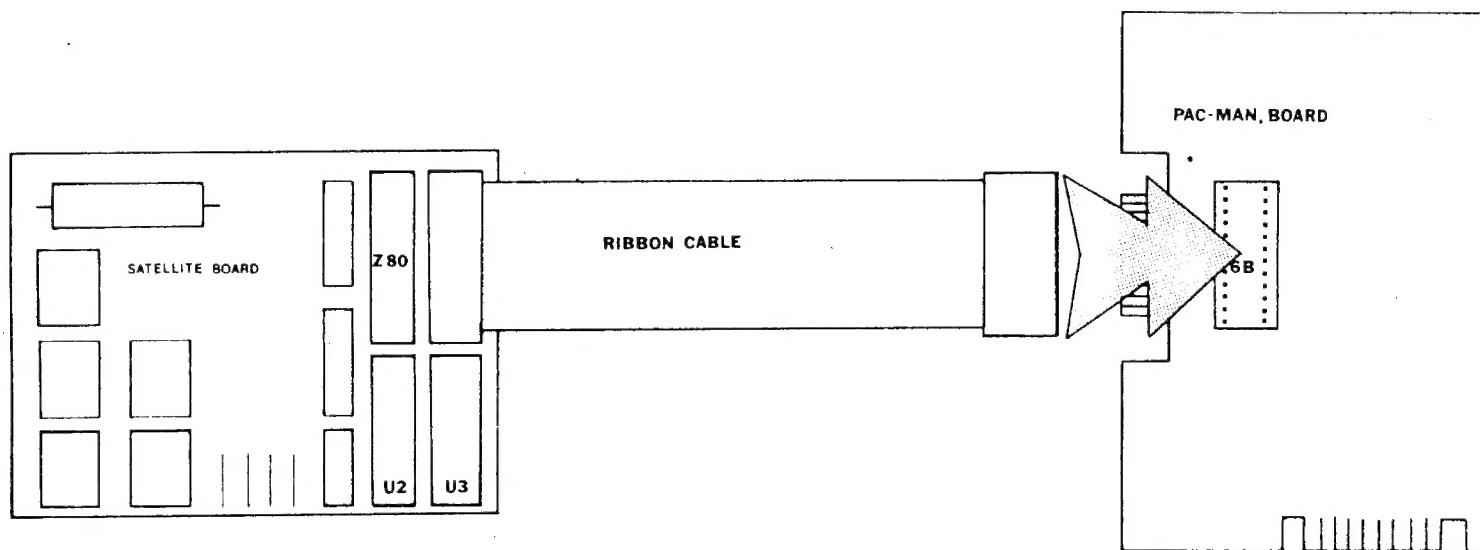
CAUTION

This kit should be installed by a qualified technician. All safety precautions as recommended by the original game manufacturer should be carefully adhered to.

Instructions For "BOARDWALK CASINO" Conversion

UPRIGHT VERSION

1. Check the contents of the box containing the "BOARDWALK CASINO" satellite board. A label with a contents list has been placed on the box to aid in this check.
2. Remove the PAC-MAN® PROMs at locations 4A and 7F and replace with the corresponding "BOARDWALK CASINO" PROMs. Also, remove the PAC-MAN character PROM at location 5E and replace with the EPROM included in the package. PROM 5F is not accessed and may be left in place.
3. The satellite board has been shipped to you with both ends of the ribbon cable plugged in. Carefully unplug the end of the cable nearest the center of the board so that the assembly appears as follows:



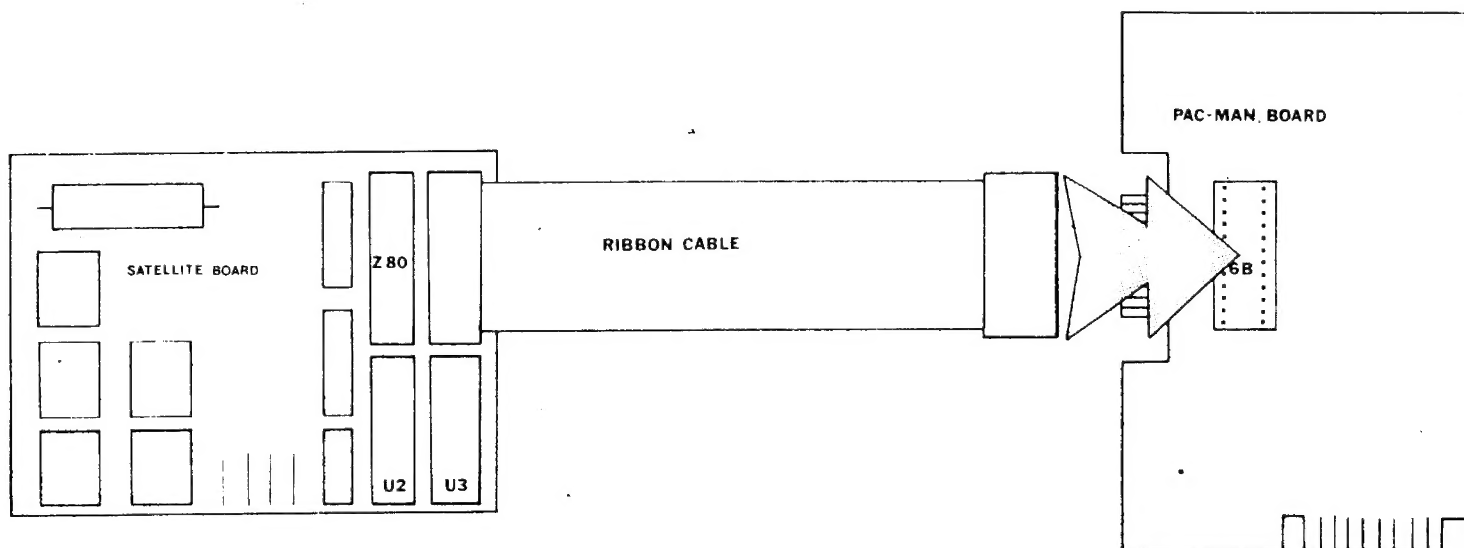
4. Carefully remove the Z80A microprocessor (6B) from the PAC-MAN® board and plug it into the satellite board in the empty socket location.
5. Next, plug the ribbon cable connector into the socket on the side of the PAC-MAN® board located at 6B. See above figure for proper orientation.

6. No PAC-MAN® software is used by this conversion; the remaining EPROMs (6E, 6K, 6F, 6M, 6H, 6N, 6J, 6P) may be removed or left on the board for storage, since they are not accessed and do not interface with "BOARDWALK CASINO".
7. For F.C.C. compliance, mount the satellite board and main logic board assembly inside the R.F. cage. Make sure the R.F. cage is well grounded. Securely fasten the satellite board inside the cage; do not let it dangle.
8. Remove the old marquee and bezel and the old PAC-MAN® control panel. Repair any damage to the cabinet or metal framework.
9. The manufacturer strongly recommends that you paint your old cabinet. It is essential that you cover all PAC-MAN® and Midway decals. We have provided exciting new graphics so that when freshly painted, your old game will look brand new and will be easily recognized as the exciting new game "BOARDWALK CASINO".
10. The control panel supplied with the kit may now be installed. To do so, simply replace the PAC-MAN® control panel with the "BOARDWALK CASINO" control panel. Be sure to plug in the control panel connector. The Table input (pin R on the edgeconnector) should not be connected to ground. Finally, apply the new marquee and bezel.

Instructions For "BOARDWALK CASINO" Conversion

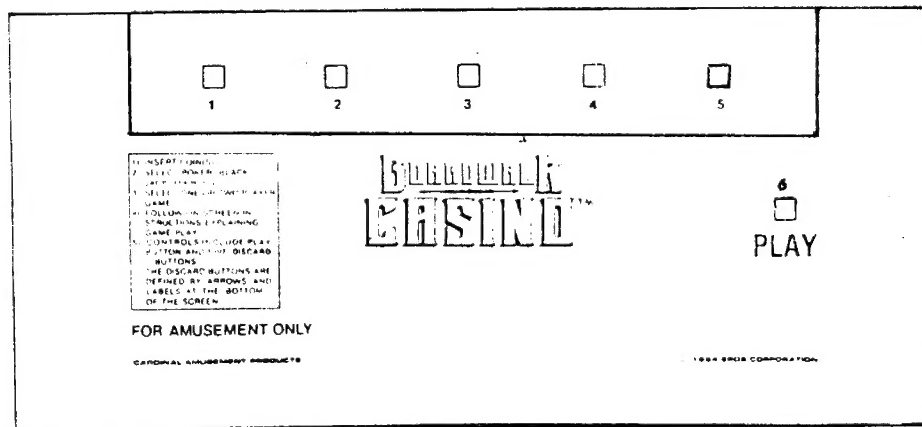
COCKTAIL VERSION

1. Check the contents of the box containing the "BOARDWALK CASINO" satellite board. A label with a contents list has been placed on the box to aid in this check.
2. Remove the PAC-MAN® PROMs at locations 4A and 7F and replace with the corresponding "BOARDWALK CASINO" PROMs. Also, remove the PAC-MAN® character PROM at location 5E and replace with the EPROM included in the package. PROM 5F is not accessed and may be left in place.
3. The satellite board has been shipped to you with both ends of the ribbon cable plugged in. Carefully unplug the end of the cable nearest the center of the board so that the assembly appears as follows:



4. Carefully remove the Z80A microprocessor (6B) from the PAC-MAN® board and plug it into the satellite board in the empty socket location.
5. Next, plug the ribbon cable connector into the socket on the side of the PAC-MAN® board located at 6B. See above figure for proper orientation.
6. No PAC-MAN® software is used by this conversion; the remaining EPROMs (6E, 6K, 6F, 6M, 6H, 6N, 6J, 6P) may be removed or left on the board for storage, since they are not accessed and do not interface with "BOARDWALK CASINO".
7. For F.C.C. compliance, mount the satellite board and main logic board assembly inside the R.F. cage. Make sure the R.F. cage is well grounded. Securely fasten the satellite board inside the cage; do not let it dangle.

8. Remove the cover glass and gently scrape the old artwork off.
9. Remove the old joysticks and the One and Two Player Start buttons. Also remove the old PAC-MAN control panel overlays.
10. The manufacturer strongly recommends that you paint your old cabinet. It is essential that you cover all PAC-MAN and Midway decals. We have provided exciting new graphics so that when freshly painted, your old game will look brand new and will be easily recognized as the exciting new game "BOARDWALK CASINO".
11. The cover glass underlay sheet has the new control panel overlays in the center of it. Cut out and mount the self-adhesive overlays. Use screws on each corner to hold them down securely. Drill six holes, 3/8 inches in diameter, at the spots indicated in the diagram below.



12. Install the buttons included in the kit on the control panels. Wire the buttons as specified on the following chart:

PLAYER ONE CONTROL PANEL

BUTTON	WIRE TO
# 1	Player 1 Up
# 2	Player 1 Left
# 3	Player 1 Right
# 4	Player 1 Down
# 5	1 Player Start
# 6	2 Player Start

PLAYER TWO CONTROL PANEL

BUTTON	WIRE TO
# 1	Player 2 Up
# 2	Player 2 Left
# 3	Player 2 Right
# 4	Player 2 Down
# 5	Test Switch (Pin K on edgeconnector)
# 6	Credit Switch (Pin 9 on edgeconnector)

Make sure the **Table** input (pin R on the edgeconnector) is connected to ground.

13. Apply the new cover glass underlay and trim to size. Remount the cover glass.

Dip Switch Assignments

<u>Switch #</u>	<u>Description</u>
1	ATTRACT MODE SOUND
2	# OF HANDS PER CREDIT
3	# OF HANDS PER CREDIT
4	# OF HANDS PER CREDIT
5	# OF HANDS PER CREDIT
6	NOT USED
7	DIAGNOSTICS
8	HARDWARE FREEZE FRAME

<u>Sw #5</u>	<u>Sw #4</u>	<u>Sw #3</u>	<u>Sw #2</u>	
OFF	OFF	OFF	OFF	3 HANDS/CREDIT
OFF	OFF	OFF	ON	4 HANDS/CREDIT
OFF	OFF	ON	OFF	5 HANDS/CREDIT
OFF	OFF	ON	ON	6 HANDS/CREDIT
OFF	ON	OFF	OFF	7 HANDS/CREDIT
OFF	ON	OFF	ON	8 HANDS/CREDIT
OFF	ON	ON	OFF	9 HANDS/CREDIT
OFF	ON	ON	ON	10 HANDS/CREDIT
ON	OFF	OFF	OFF	11 HANDS/CREDIT
ON	OFF	OFF	ON	12 HANDS/CREDIT
ON	OFF	ON	OFF	13 HANDS/CREDIT
ON	OFF	ON	ON	14 HANDS/CREDIT
ON	ON	OFF	OFF	15 HANDS/CREDIT
ON	ON	OFF	ON	16 HANDS/CREDIT
ON	ON	ON	OFF	17 HANDS/CREDIT
ON	ON	ON	ON	18 HANDS/CREDIT

BOARDWALK CASINO Diagnostics

In order to aid the operator in setting up "BOARDWALK CASINO", adjusting the monitor, and quickly locating and correcting problems, several comprehensive diagnostic routines were provided in "BOARDWALK CASINO" software. Flip dip switch number seven on, then back to off to enter diagnostics on both upright and cocktail models. As an additional convenience to the operator, the standard Test switch may be used to enter diagnostics on upright models. After activating one of the diagnostics switches, a menu will be displayed which instructs the operator to use the player's controls to select and execute the various routines. The options are:

1. Current Settings
2. Static RAM
3. EPROMs
4. Convergence
5. Sounds
6. Buttons
7. Exit

The above seven selections are described as follows:

1. **CURRENT SETTINGS** - Upon entering this routine, the status of Dip Switches 1 through 5 will be displayed along with a description of the function of each switch. Adjustable functions include the number of hands per credit and whether the attract mode sound is on or off. Additionally, "Upright" or "Table" is displayed, indicating which mode the game is in. Use this routine when checking the settings or use it as an aid in readjusting the settings.
2. **STATIC RAM** - This routine allows IC's 4K, 4L, 4M, 4N, 4P, and 4R on the main game board to be checked for faulty static RAM locations. Should an error be found, try reseating the "bad" chip. If an error still persists, replace the offending IC.
3. **EPROMS** - This selection performs a ROM checksum on U2 and U3 on the satellite board which point out data and program memory errors should they exist. Faulty EPROM's will be identified after execution of this routine and the checksums will be displayed. Try reseating the EPROM's before an EPROM failure is assumed. If an EPROM is replaced, replace it with one with the same code number as indicated on the EPROM label.
4. **CONVERGENCE** - This routine displays a convergence pattern which allows the operator to align the color guns of the video game monitor.
5. **SOUNDS** - Each of the game sounds found in "BOARDWALK CASINO" may be initiated with this test.

6. **BUTTONS** - This routine allows the operator to locate faulty buttons. Each of the player inputs (including the coin-in) is displayed on the screen. When a button is depressed, the appropriate display is highlighted and a tone is sounded to indicate activation. If no indication is given, faulty or dirty contacts should be suspected. This routine can also be used to assist in the initial hookup of all of the controls.
7. **EXIT** - This routine tests the automatic watchdog reset feature of the hardware and if successful, takes the operator out of diagnostics and into the game's attract mode. Dip switch number seven must be off for this routine to work.

SERVICE INFORMATION

If this kit fails to operate properly, contact your local distributor or CARDINAL AMUSEMENT PRODUCTS' service department at 1-800-421-0667. In Alabama call 826-7056. Our service staff will address your problem quickly and courteously.

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